Setting up a Usenet News Server

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Presentation Outline

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Introduction

- Usenet is the set of machines that exchange articles tagged with one or more universally-recognized labels called newsgroups (or "groups" for short).

- News servers distributed throughout the Internet receive "news feeds" from other News servers.

- Usenet sites are free to carry whatever groups they want.

- Most sites carry a core set of so-called "mainstream" groups consisting of approximately 1000. The number of mainstream groups is currently growing at a rate of about one or two every week.
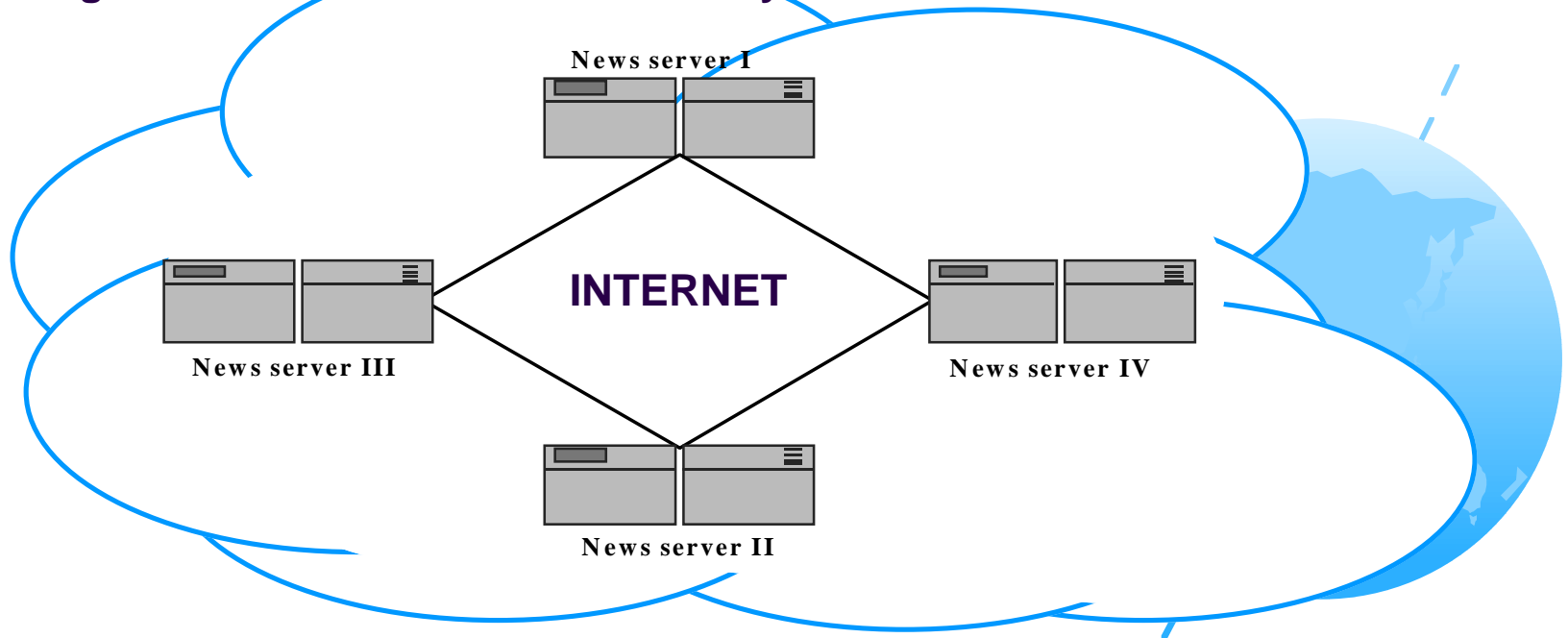
News server I

INTERNET

News server III

News server IV

News server II

Figure 1: Each news feed can send/receive INN data from the servers.

History

• Usenet began as a UNIX communications project at Duke University in the spring of 1980.

• Students at Duke and the University of North Carolina wrote software that would exchange specialized messages between their schools' UNIX systems.

• Shortly thereafter, this software was shared with senix (a UNIX users' group), and within a year of the first testing fifty universities were exchanging messages.

• The UNIX operating system began to catch on in the early 1980s, and more schools and businesses began to establish UNIX sites on other existing networks.

• By 1983, the number of sites supporting the software grew from 50 to 500 with an average of five to ten new sites connecting each month.

• Employees at Bell Labs became interested in the communication activity and took over writing the communications software, which had become known as the "news" software.

• Both the user interface (the News reader) and the transport package (the News sender) became standardized and more robust, and the popularity of Usenix News grew.

• The term Usenet soon came into existence to identify the Usenix Network that was spreading across the continent at a rapid pace.

• Today, Usenet spans the entire world (highest concentration in U.S.) with 16,000 sites.

What Usenet News is Not

- Usenet is not an organization

- Usenet is not a democracy

- Usenet is not fair

- Usenet is not a right

- Usenet is not a public utility

- Usenet is not a commercial network

- Usenet is not the Internet

- Usenet is not a UNIX network, nor even an ASCII network

- Usenet is not software

- Usenet is not a UUCP network

Crosspostings

•An article can be posted to a list of groups simultaneously . The Newsgroups line in the configuration of the server is not limited to one group.

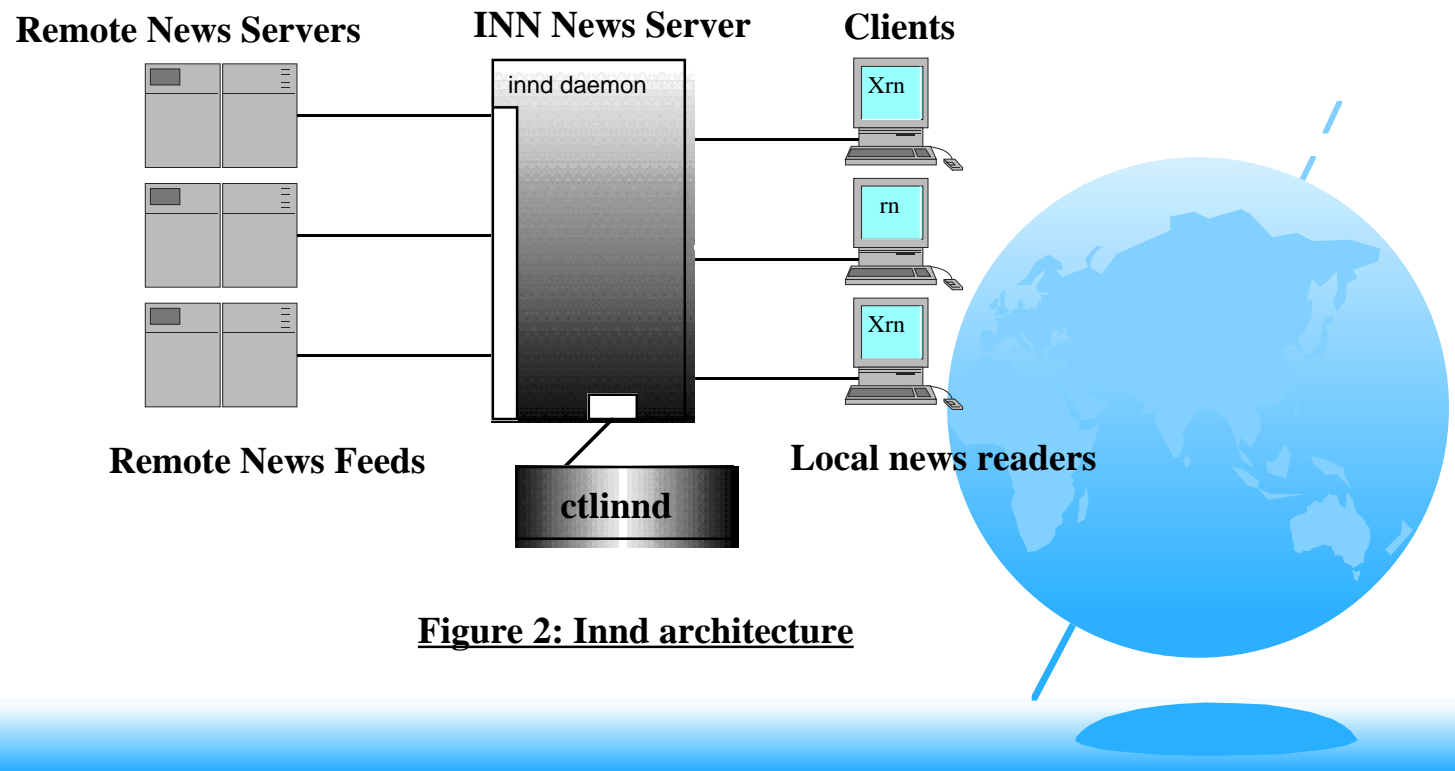•It is usually safe to cross post up to three or four groups, but any more than that is considered excessive.

Figure 2: Innd architecture

Quality of Postings

- How you write and present yourself in your articles is important.

- If you have terrible spelling, keep a dictionary near by.

- If you have trouble with grammar and punctuation, try to get a book on English grammar and composition.

- By all means pay attention to what you say--it makes you who you are on The Net.

- Likewise, try to be clear in what you ask.

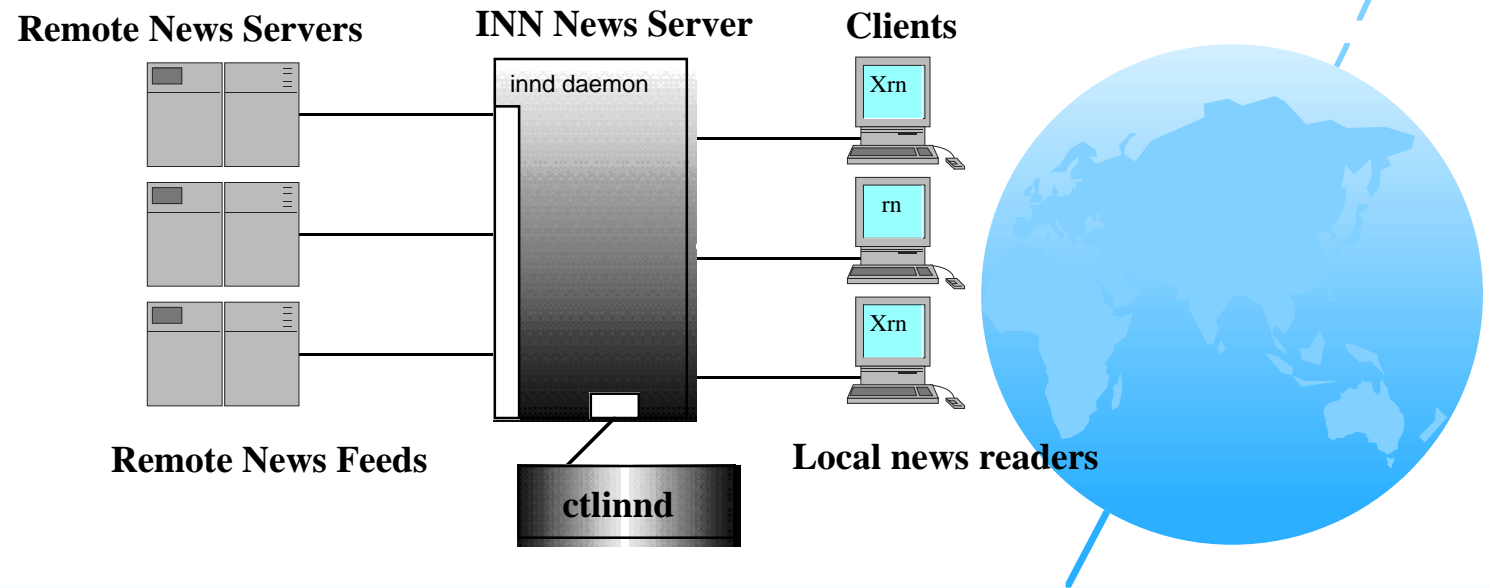- Ambiguous or vague questions often lead to no response at all.

Remote News Servers   **INN News Server**   **Clients**

innd daemon

Xrn

rn

Xrn

Remote News Feeds   **Local news readers**

ctlinnd

Figure 2: Innd architecture

Site Preparation/Readiness

•While the explosive growth of the Internet continues, the number of sites participating in Usenet will grow as will the number of news groups.

•Usenet traffic places demands on all sites, while the goal of fast network access puts particular demands on NNTP servers.

•Therefore, it is important to determine the needs of a potential news site and the limitations of the network and the machine it will utilize.

Consider the following for planning a news site:

  •Select a robust stand alone system, or one with few interactive users
  •Determine if software is available for your machine
  •Locate the News software distribution
  •Allocate disk space
  •Determine all desired News groups
  •Allocate disk space for News articles
  •Obtain a News feed

Usenet Server Software

• There are three major Public Domain Usenet software packages:

       NNTP (Network News Transfer Protocol)

       C-News

       INN (InterNet News)

• The InterNet News (INN) application was developed as a complete replacement for the NNTP and C-News applications previously in use at most sites.

• INN utilizes the standard network news transfer protocol (NNTP) to enable communications with sites running any of these applications, and thus is widely used to serve news on the Internet.

• Four programs comprise the INN software package:

       innd - The single daemon that received and processes all incoming articles.

       ctlinnd - sends control commands to the innd.

       innxmit - reads a file identifying articles and offers them to another site.
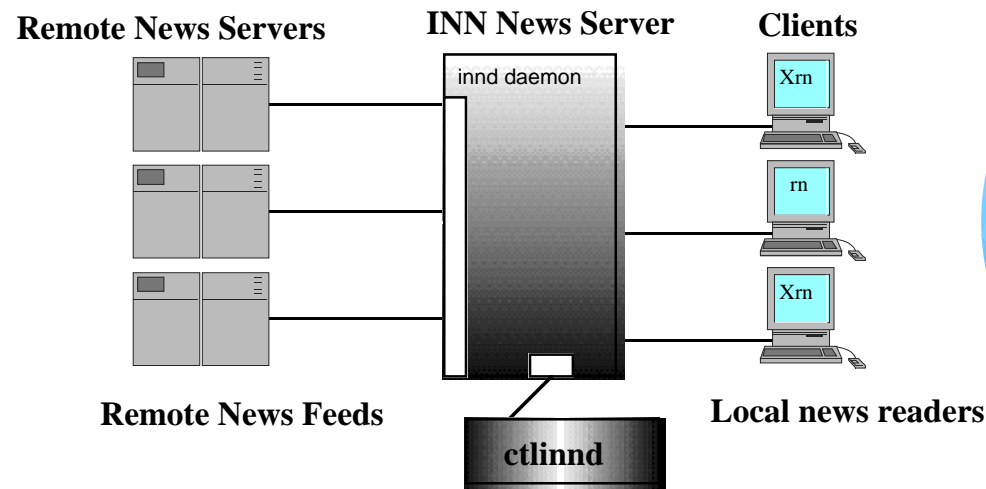
       nnrpd - the NNTP server oriented for news readers.
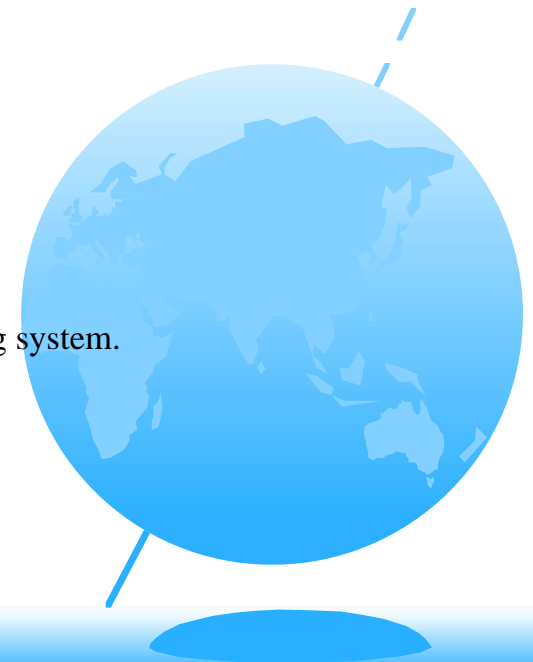

Figure 2: Innd architecture

Determining the Desired News Groups

•Usenet sites can freely carry whatever news groups they desire.

•Prior to implementation of a news server, determine which of the numerous news groups should be carried on the server.

•A list of all available news groups can be viewed through a news client application such as RN or XRN.

•If these applications are not available, a list can be obtained through an anonymous ftp site: ftp.uu.net in the directory /usenet/news

•It is important to be selective and choose only those news groups that are of importance.

•Every administrator controls their own site.

•No one has any real control over any site but their own.

•The administrators get their power from the owner of the system they administer.

Newsgroup Hierarchy

alt   Alternative Groups. The creation of these groups is not moderated.
bionet   Biology.
bit   Bitnet Gatewayed Goups
biz   Comercially oriented (business)
cern   CERN local interest groups. See also: fnal , hepnet .
ch   Swiss newsgroups
comp   Computing. Many groups, on all aspects.
de   German groups.
DESY   DESY newsgroups.
eunet   European Usenet newsgroups
fr   French newsgroups
gnu   The GNU project of the Free Software Foundation.
hepnet   High Energy Physics
k12   Kindergarten through 12th grade education.
misc   Miscellaneous newsgoups (small ads etc)
news   About the news system itself
pubnet   Public access systems.
rec   Recreation
sci   Science
soc   Society
talk   Talk - gossip and discussion about current affairs
vmsnet   VMS - the Digital Equipment Corporation (tm) operating system.

Moderated vs Unmoderated

• **Some newsgroups insist that the discussion remain focused and on-target; to serve this need, moderated groups came to be.**

• **All articles posted to a moderated group get mailed to the group's moderator. He or she periodically (hopefully sooner than later) reviews the posts, and then either posts them individually to Usenet, or post a composite digest of the articles for the past day or two.**

• **Moderator has a role similar to an editor. Could border on censorship!**

Remote News Servers   **INN News Server**   **Clients**

innd daemon

Xrn

rn

Xrn

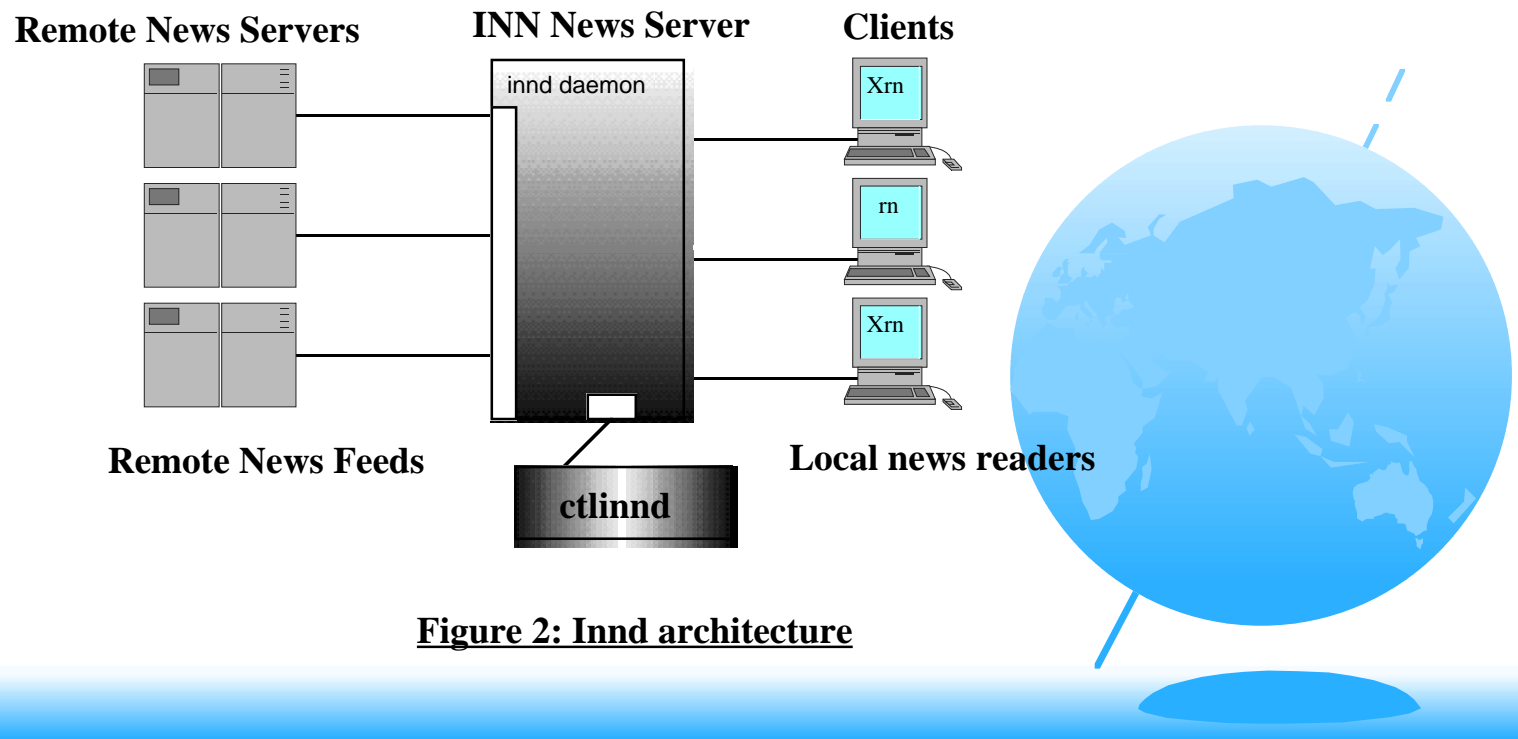**Remote News Feeds**   **Local news readers**

ctlinnd

Figure 2: Innd architecture

Allocating Disk Space

- The InterNet News (INN) package, containing binaries and source code, requires about 4Mbytes.

- Additional disk space will be required to store the Usenet article tree that will store all the articles housed on the INN server.

- Generally these articles are installed in a (/var/spool/news) partition.

- Separate   partitions can be used to optimize throughput depending on the size of the news feed.

- Expiration dates can be set on articles posted to any or all groups for effective disk management.

Obtaining a News Feed For an Internet Site

1.Server:194.6.183.101
   Access:Read and post.
   Report: 200 Worldgroup NNTP server ready at 18-JAN-96 00:15:20
   posting allowed

2.Server:199.203.20.33
   Access:Read and post.
   Report: 200 ort.ort.org.il InterNetNews NNRP server INN 1.4 22-
   Dec-93 ready (posting ok).

3.Server:199.249.190.57
   Access:Read and post.
   Report: 200 Worldgroup NNTP server ready at 17-JAN-96 18:16:02
   - posting allowed

4.Server:204.107.208.3
   Access:Read and post.
   Report: 200 news01.teaminfinity.com InterNetNews NNRP server
   INN 1.4 20-Mar-93 ready (posting ok).

5.Server:204.191.105.5
   Access:Read and post.
   Report: 200 news.cyberplus.ca NNS server version X2.06 ready -
   posting allowed

Xrn sample

xrn - version 6.17

alt.machines.misc	0 articles
Unread news in alt.horror	17 articles
Unread news in alt.horror.cthulhu	4 articles
Unread news in alt.horror.shub-internet	1 article
Unread news in alt.horror.werewolves	1 article
alt.hotrod	0 articles
Unread news in alt.housing.nontrad	1 article
Unread news in alt.hypertext	131 articles
Unread news in alt.hypnosis	172 articles
Unread news in alt.illuminati	10 articles
Unread news in alt.image.medical	7 articles
Unread news in alt.imploding.kibo	53 articles
alt.india.progressive	0 articles
Unread news in alt.individualism	14 articles
Unread news in alt.industrial	177 articles
Unread news in alt.industrial.computing	1 article
Unread news in alt.infertility	1 article
news in news.announce.newusers	0 articles

Read the articles in the current group

Quit | Read | Next | Prev | Catch up | Subscribe | Unsubscribe | Goto gro

All groups | List old | Rescan | Prev group | Select groups | Move | Ex

Checkpoint | Gripe | Post

Usenet Advantages/Disadvantages

- ## Advantages
    - participate in discussion world-wide
    - get solution to problems online
    - meet other people with similar interest
    - a cheap means to advertise
    - exposure to a lot of information world-wide

- ## Disadvantages
    - network traffic
    - security
    - overhead for system administrator
    -